Other entries by the author: hermeneutics, intercultural information ethics, message, roboethics

Information Ethics

Article

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Incorporated contributions	Capurro (12/2009), Díaz (2/2009)
Usage domain	information society
Type	theory
French	étique de l'information
German	Informationethik

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Digital ethics or *information ethics* in a *broader sense* deals with the impact of digital Information and Communication Technologies (ICT) on our societies and the environment at large. In a *narrower sense* information ethics (or digital media ethics) addresses ethical questions dealing with the internet and internet-worked information and communication media such as mobile phones and navigation services. As we will argue, issues such as privacy, information overload, internet addiction, digital divide, surveillance and robotics, which are topics of prevailing discussion, requires an intercultural scrutiny. Information Ethics is posed as an endeavour to cope with the challenging problems of our digital age.

1. Introduction

Since the second half of the last century computer scientists, such

Entries

Name (date)

[Entry text]

Incorporated entries

R. Capurro (12/2009)

[It corresponds with the first version of the article, which is now showed in the left column.]

J. Díaz (2/2010)

[It corresponds to some passages integrated in the text regarding economical issues, global challenges, carefulness, and references to glossary and external sources]

as Norbert Wiener (1989/1950) and Joseph Weizenbaum (1976), called public's attention to the ethical challenges immanent in computer technology that can be compared in their social relevance to the ambivalent promises of nuclear energy. In the beginning the discussion was focused on the moral responsibility of computer professionals. But for scientists like Wiener and Weizenbaum the impact of computer technology was understood to be something that concerned society as a whole.

Half a century after Wiener's seminal work the World Summit on the Information Society (WSIS) developed the vision

"[…] to build a people-centred, inclusive and development-oriented Information Society, where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of life, premised on the purposes and principles of the Charter of the United Nations and respecting fully and upholding the Universal Declaration of Human Rights." (WSIS 2003).

The WSIS also proposed a political agenda, namely

"[…] to harness the potential of information and communication technology to promote the development goals of the Millennium Declaration, namely the eradication of extreme poverty and hunger; achievement of universal primary education; promotion of gender equality and empowerment of women; reduction of child mortality; improvement of maternal health; to combat HIV/AIDS, malaria and other diseases; ensuring environmental sustainability; and development of global partnerships for development for the attainment of a more peaceful, just and prosperous world." (WSIS 2003).

The academic as well as the social debates on these issues have increased rapidly particularly since the rise of the Internet. *Digital ethics* or *information ethics* can be considered in a *narrower sense* as dealing with the impact of digital ICT on society and the environment at large as well as with ethical questions dealing with the Internet digital information and communication media (digital media ethics) in particular. Information ethics in a *broader sense* deals with information and communication including -but not limited to- the digital media.

2. The global impact of ICT on society and the environment

Economic, political and ecological activities of modern societies rely heavily on digital communication networks.

The relevance of digital ICT on the **economy** became obvious with the burst of the 2000 dot.com bubble. Its close dependence with the financialisation of economy as well as the transformation of economical activities in the last two decades leading to a increasing globalisation of the economical structure (Estefanía 1996, Ramonet 2004, Castells 2007) lead us to consider ICT as one of the main factors leading to the recent world economic crisis (Bond 2008). Beyond the moral individual responsibility of

politicians, bankers and managers, there is a systemic issue that has to do with the digitalization of communication and information in finances and economics. Digital capitalism was and is still able to bypass national and international law, control and monitoring institutions and mechanisms as well as codes of practice and good governance leading to a global crisis of trust not only within the system but with regard to the system itself.

Many experts in politics and economic agree that in order to develop a people-oriented and sustainable world economic system, national and international monitoring agencies as well as international laws and self-binding rules are needed. Academic research in digital ethics should become a core mandatory issue of economics and business studies. Similarly to the already well established bioethics committees, ethical issues of ICT should be addressed taking as a model for instance the European Group on Ethics in Science and New Technologies to the European Commission (EGE; Capurro 2004).

ICT has a deep impact on **politics** leading to a transformation of 20th century broadcast mass media based democracy, or *mediocracy*, on the basis of new kinds of digital-mediated interactive participation. New interactive media weakens the hierarchical one-to-many structure of traditional global mass-media, giving individuals, groups, and whole societies the capacity to become senders and not "just" receivers of messages (→*message,* →*dialogic vs discursive*).

We live in *message societies*. I call the science dealing with messages and messengers *angeletics* (from Greek: ἀγγελία ἤ ἀγγελος = message/ messenger) (Capurro 2003,→*angeletics*). New ICTs are widely used for political participation and grass-roots protest groups as well as by liberation and peace movements. By the same token, digital communication networks make possible new structures of political surveillance, censorship and control on individuals and whole societies. Digital ethics should address the question of the human right to communicate (→*Critical Theory of Information*).

The Internet has become a local and global basic social communication infrastructure. Freedom of access should be considered a fundamental ethical principle similar to freedom of speech and freedom of the press. Some of the rights stated in the *Universal Declaration of Human Rights* such as the right to freedom of thought, conscience and religion (Art. 18), the right to freedom of opinion and expression (Art. 19), and the right to peaceful assembly and association (Art. 20) need to be explicitly interpreted and defined taking the new and unique affordances of internetworked digital media into consideration. Lawrence Lessig (1999) envisaged a situation in which the universality of Cyberspace is endangered by local codes of the market, the software industry, the laws of nation states, and moral traditions. He writes:

"If we do nothing, the code of cyberspace will change. The invisible hand will change it in a predictable way. To do nothing is to embrace at least that. It is to accept the changes that this change in code will bring about. It is to accept a cyberspace that is less free, or differently free, than the space it was before." (Lessig 1999, 109)

A free Internet can foster peace and democracy but it can also be used for manipulation and control. For this reason, a necessity to strive for a future internet governance regime on the basis of intercultural deliberation, democratic values and human rights has been pointed out (Senges and Horner 2009, Capurro 2010).

Another issue arisen in contemporary societies concerns the impact of the **materialities of ICT** on nature and natural resources. Electronic waste has become major issue of digital ethics (IRIE 2009). It deals with the disposal and recycling of all kinds of ICT devices that already today have devastating consequences on humans and the environment particularly when exported to Third World countries. Issues of sustainability and global justice should be urgently addressed together with the opportunities offered by the same media to promote better shelter, less hunger and combat diseases. In other words, I advocate for the expansion of the human rights discourse to include the rights of non-human life and nature. The present ecological crisis is a clear sign that we have to change our lives in order to become not masters but stewards of natural environment.

3. Digital media ethics: an intercultural concern

The main topics of digital media ethics or digital (information) ethics commonly addressed are: intellectual property, privacy, security, information overload, digital divide, gender discrimination, and censorship (Ess, 2009; Himma and Tavani 2008). However a more critical reflection -as previously argued- should also embrace issues concerning: economical responsibility, political participation and materialities of ICT.

All these topics are objects of ethical scrutiny not only on the basis of universal rights and principles but also with regard to cultural differences as well as to historical and geographical singularities leading to different kinds of theoretical foundations and practical options. This field of ethics research is now being called intercultural information ethics (Capurro 2008; Hongladarom and Ess 2007; Capurro 2006; →*Intercultural Information Ethics*).

One important challenge in this regard is the question about how human cultures can flourish in a global digital environment while avoiding uniformity or isolation. Research networks on Information Ethics are flourishing in Africa (ANIE: African Network for Information Ethics: ANIE) and Latin America (RELEI: Red Latinoamericana de Ética de la Información).

An example of the relevance of the intercultural approach in

digital media ethics is the discussion on the concept of **privacy** from a Western vs. a Buddhist perspective. While in Western cultures privacy is closely related to the *self* having an intrinsic value, Buddhism relies on the tenet of *non-self* and therefore the social perception as well as the concept of privacy are different (Nakada and Tamura 2005; Capurro 2005). However, a justification of privacy from a Buddhist perspective based on the concept of *compassion* seems possible and plausible (Hongladarom 2007).

Digital surveillance of public spaces is supposed to ensure safety and security facing unintentional or intentional dangers for instance from criminal or terrorist attacks. But at the same time it threatens autonomy, anonymity and trust that build the basis of democratic societies (RISEPTS 2009). New technologies allowing the tracking of individuals through RFID or ICT implants are similarly ambiguous with regard to the implicit dangers and benefits. Therefore they need special scrutiny and monitoring (EGE 2005).

Recent advances in **robotics** show a wide range of applications in everyday lives beyond their industrial and military applications (ETHICBOTS 2008). Robots are mirrors of ourselves. What concepts of sociality are conceptualized and instantiated by robotics? An intercultural ethical dialogue – beyond the question of a code of ethics to become part of robots making out of them "moral machines" (Wallach and Allen 2009) – on human-robot interaction is still in its infancy (Capurro and Nagenborg 2009,→*roboethics*).

Another example is the question of **information overload**, which has a major impact in the everyday life of millions of people in information-rich societies (Capurro 2005b) giving rise to new kinds of diseases and challenging also medical practice (Capurro 2009). We lack a systematic pathology of information societies. Similarly the question of internet addiction particularly in young generations, is worrisome. For example there is a growing need for cell-phones-free times and places, in order to protect ourselves from the imperative of being permanently available.

The ethical reflection on these issues belongs to a theory of the **art of living** following some paths of thought by French philosopher Michel Foucault. He distinguishes the following kinds of technologies, namely:

"*technologies of production*, which permit us to produce, transform, or manipulate things,"
"*technologies of sign systems*, which permit us to use signs, meanings, symbols, or significations,"
"*technologies of power* which determine the conduct of individuals and submit them to certain ends or domination, an
"*technologies of the self*, which permit individuals to effect by their own means or with the help of others a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immortality." (Foucault 1988, 18)

How can we ensure that the benefits of information technology are not only distributed equitably, but that they can also be used by the people to shape their own lives? (Capurro 2005a; See also Capurro 1996; 1995; 1995a).

Another important issue of digital media ethics concerns the so-called **digital divide** should not be considered just a problem of technical access to the Internet but an issue of how people can better manage their lives using new interactive digital media avoiding the dangers of cultural exploitation, homogenization, colonialism, and discrimination. Individuals as well as societies must become aware of different kinds of assemblages between traditional and digital media according to their needs, interests and cultural backgrounds (Ong and Collier 2005). An inclusive information society as developed during the WSIS must be global and plural at the same time. Concepts like*hybridization* or *polyphony* are ethical markers that should be taken into account when envisaging new possibilities of freedom and peace in a world shaped more and more by digital technology.

In a recent report on "Being Human: Human-computer interaction in the year 2020," a result of a meeting organized by Microsoft Research in 2007, the editors write:

"The new technologies allow new forms of control or decentralisation, encouraging some forms of social interaction at the expense of others, and promoting certain values while dismissing alternatives. For instance, the iPod can be seen as a device for urban indifference, the mobile phone as promoting addiction to social contact and the Web as subverting traditional forms of governmental and media authority. Neural networks, recognition algorithms and data-mining all have cultural implications that need to be understood in the wider context beyond their technical capabilities. The bottom line is that computer technologies are not neutral – they are laden with human, cultural and social values. These can be anticipated and designed for, or can emerge and evolve through use and abuse. In a multicultural world, too, we have to acknowledge that there will often be conflicting value systems, where design in one part of the world becomes something quite different in another, and where the meaning and value of a technology are manifest in diverse ways. Future research needs to address a broader richer concept of what it means to be human in the flux of the transformation taking place." (Harper, Rodden, Rogers and Sellen 2008, 57)

This remarkable quote from a meeting organized not by anti-tech humanists, but by one of the leading IT companies, summarizes the main present and future tasks of digital ethics as a critical interdisciplinary and intercultural on-going reflection on the transformation of humanity through computer technology.

4. Towards a common world: new risks, new responsability

Humanity is experiencing itself particularly through the digital medium as a totality or system of interrelations. Who are we and

what do we want to be as humanity? This question asks for a historical not a metaphysical answer. A negative vision of such unity are balkanisations and imperialisms of all kinds, including digital ones.

Whereas the digital technologies might diminish "vulnerability and commitment" (Dreyfus 2001), the global challenges (as those gathered in the UN Millennium Goals), bring about unpredictable dangers in which information technologies are undoubtedly involved (in both positive and negative aspects), and claim for a renewal of responsibility, regarding what technology we want, how we develop it, how we share it, how we use it. We might cope with all these challenges, which include inequalities, divides and injustices of many types, if we jump over the human wall, i.e. we consider our endeavour for *human* rights as a part of a wider objective for a common world where carefulness extends towards nature. And this carefulness itself, should jump over a formal strive for rights, probably needing a rebirth of carefulness -for instance in health care (Kleinman et al. 2006), for which a critical appraisal within digital environment is needed (Capurro 2010)- since needs, human or not, are much more than simple collections of data, requiring a careful *interpretation* process, a closer interplay among partakers (→*Hermeneutics*).

Digital globalization should make us aware of the human interplay with each other in such a common world instead of making of the digital perspective over our lives and over reality a kind of digital metaphysics or (political) ideology. This relativization of the digital perspective has been called *digital ontology* (Capurro 2006).

Who are we in the digital age? As human cultures become digitally hybridized this process affects social life in all its dimensions as well as our interplay with nature. The key task of digital ethics is to make us aware of the challenges and options for individual and social life design. The digital medium is an opportunity for the subjects of the 21st century to transform themselves and their relations in and with the world. This implies allowing each other to articulate ourselves in the digital network, while taking care of historical, cultural and geographical singularities. An ethical intercultural dialogue is needed in order to understand and foster human cultural diversity. Hereby we must look for common ethical principles so that digital cultures can become a genuine expression of human liberty and creativity.

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Ética de la información || Information Ethics

Artículo

Editor	Capurro, Rafael rafael@capurro.de
Contribuciones incorporadas	Capurro (30/10/09)
Ámbito de uso	sociedad de la información, filosofía, TIC
Tipo	disciplina
Francés	étique de l'information
Alemán	Informationethik

El concepto de *ética de la información* se remonta probablemente alrededor de la década de 1970 cuando la computadora comenzó a usarse en el campo de la información científica y surgieron nuevas preguntas sobre todo con respecto al almacenamiento y acceso a documentos de contenido científico-técnico o a sus sustitutos (/abstracts/) coleccionados en bases de datos bibliográficas. Cuando surgió internet a comienzos de 1990 tuvo lugar una extensión del significado del concepto usado hasta entonces de *ética de la computación* (/computer ethics/) al nuevo medio y se crearon al mismo tiempo nuevos términos competitivos como el de '*ciberética*' (/cyberethics/) y *ética de la información*(/information ethics/). Esto se produjo no sólo en vistas a distinguir los nuevos problemas planteados por la red digital con respecto a una concepción de ética computacional entendida meramente como ética laboral para informáticos sino sobre todo también para mostrar la diferencia de los problemas éticos planteados por internet en contraposición a los planteados por los medios de comunicación de masa ('ética de los medios' o /media ethics / communication ethics/) incluyendo la ética laboral periodística.

Hoy en día el concepto de ética de la información abarca todas las preguntas éticas relacionadas con la digitalización, es decir con la reconstrucción de todos los fenómenos posibles no restringidos al actuar humano y concebidos en el código 0 y 1 como información digital así como también con respecto a los problemas éticos relacionados por el intercambio, la combinación y el uso de dicha información incluyendo su comunicación a través del medio digital. Este carácter difuso del concepto de ética de la información tiene su fundamento en un amplio sentido de los procesos de digitalización y de su tendencia no sólo a subsumir a todos los fenómenos sino también a considerar como ontológicamente válido sólo aquello que pueda ser digitalizado. En este sentido se habla de una ontología digital (Capurro 2002).

En el marco de esta precomprensión amplia de una ética de la información quienes participan en el *International Center for Informacion Ethics* (ICIE: <http://icie.zkm.de/>) usan un sentido más limitado del término en vistas a delimitar el campo de trabajo a corto y mediano plazo. Este sentido restringido se refiere a la discusión de problemas éticos relacionados con internet ('ética de la red' o /net ethics/) y con la comunicación digital. Estos puntos de

gravedad tienen un carácter pragmático. La ética de la información tiene que comenzar con un objeto posible y la red digital es ciertamente uno de los desafíos actuales más importantes. Esto se puede concretar tomando como ejemplo la discusión sobre la así llamada sociedad del conocimiento.

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